

**PENGEMBANGAN *ANDROID MOBILE GAME* “SMART CHEMIST”
SEBAGAI MEDIA PEMBELAJARAN KIMIA SMA/MA KELAS X
SEMESTER GANJIL PADA MATERI STRUKTUR ATOM
DAN SISTEM PERIODIK UNSUR**

Oleh

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ABSTRAK

Penelitian ini bertujuan untuk : 1) menghasilkan *mobile game* “Smart Chemist” sebagai media pembelajaran kimia SMA/MA Kelas X Semester Ganjil pada Materi Struktur Atom dan Sistem Periodik Unsur; 2) mengetahui kualitas *mobile game* “Smart Chemist” menurut penilaian lima orang guru kimia; 3) mengetahui penilaian dan tanggapan peserta didik terhadap *mobile game* “Smart Chemist”.

Mobile game “Smart Chemist” ini dikembangkan dengan model pengembangan ADDIE (*Analyze, Design, Development, Implementation, and Evaluation*). Produk awal ditinjau oleh 1 orang ahli materi, 1 orang ahli media, 1 orang ahli instruksional desain, dan 3 *peer reviewer*. Penilaian kualitas produk dilakukan berdasarkan aspek materi dan soal, kebahasaan, keterlaksanaan, tampilan audio visual, dan rekayasa perangkat lunak. Data penilaian diperoleh dari hasil isian angket dengan skala Likert oleh 5 orang guru SMA dan 28 orang peserta didik.

Hasil penelitian menunjukkan bahwa: 1) *mobile game* “Smart Chemist” berhasil dikembangkan dan dapat dioperasikan pada *android mobile phone* ; 2) berdasarkan penilaian guru, skor rata-rata (\bar{X}) *mobile game* “Smart Chemist” adalah 109,20, sehingga termasuk dalam kategori sangat baik (SB); 3) berdasarkan penilaian 28 peserta didik memperoleh skor rata-rata (\bar{X}) 80,32, sehingga termasuk dalam kategori sangat baik (SB).

Kata Kunci: Media pembelajaran, *mobile game*, Android, Struktur atom, Sistem periodik unsur

**DEVELOPMENT OF ANDROID MOBILE GAME “SMART CHEMIST”
AS CHEMISTRY LEARNING MEDIA AT GRADE X OF SENIOR
HIGH SCHOOL IN THE ODD SEMESTER ON
ATOMIC STRUCTURE AND PERIODIC
SYSTEM OF ELEMENTS**

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ABSTRACT

The aims of this research were: 1) to develop mobile game “Smart Chemist” as chemistry learning media in X grade of odd semester of senior high school on atomic structure dan periodic system of elements; 2) to determine the quality of mobile game “Smart Chemist” based on the assesment from chemistry teachers; 3) to determine the quality and to know the opinion of mobile game “Smart Chemist” based on the assesment from students.

Mobile game “Smart Chemist” was developed by using ADDIE (Analyze, Design, Development, Implementation, and Evaluation) method. This mobile game was reviewed and commented by supervisor lecturer, a chemistry expert, a multimedia, technology and information expert, a instructional expert and 3 peer reviewers. The quality of mobile game was determined based on the aspect of subject and matter, language, operational process, audio-visual, and software design. The assesment data were collected from 5 chemistry teachers and 28 students by using a Lykert questionnaire.

The result of this research were: 1) mobile game “Smart Chemist” can be developed and applied on android mobile phone ; 2) the average score (\bar{X}) based on the assesment of 5 chemistry teachers was 109.20, so the criteria suggest that the mobile game is very good, close to ideal learning criteria; 3) the average score (\bar{X}) based on the assesment of 28 students was 80.32, so the criteria suggest that the mobile game is very good, close to ideal learning criteria.

Keywords: Learning media, Mobile game, Android, Atomic structure, Periodic system of elements, ADDIE